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UNITED STATES PATENT AND TRADEMARK OFFICE

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MORRISON & FOERSTER LLP
1650 TYSONS BOULEVARD
SUITE 300
McLEAN, VA 22102

EXAMINER
TRAN, HAI V

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-80* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date .

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-80 are rejected under 35 U.S.C. 102(e) as being anticipated by Boucher et

al. (WO 00/51310).

Claim 1, Boucher discloses a method of increasing a quantity of differentiable

programming content (presentations, i.e., a composite data object; page 10, lines 8-

10; page 12, lines 12-18; page 21, lines 7-18) available in a digital programming

transmission stream (page 7, lines 24-page 8, lines 16) comprising:

Creating a plurality of digital programming components (data objects, Scripts,

multimedia elements; page 26, lines 4-33; page 43, lines 1-7), the plurality of digital

programming components utilizing a bandwidth of the digital programming

transmission stream less than or equal to a bandwidth normally allocated for a

standard digital programming segment, wherein the standard digital programming

segment is a unit of differentiable programming content (page 40, lines 20-page 42);

Defining at least one subset of the plurality of digital programming

components to comprise at least one component programming segment (reads on

grouping into or defining subgroups, i.e. geographic location, affinity groups or

profession, from among data objects, Scripts, multimedia elements page 68, lines

17-32), wherein the at least one component programming segment is also a unit of

differentiable programming content (data objects, multimedia elements (in which

data objects, Scripts, multimedia elements compose the presentations page 12,

lines 12-18); and

Inserting at least the at least one subset of the plurality of digital programming

components into the digital programming transmission stream (page 60, lines 11-

32);

wherein, without increasing the bandwidth normally allocated for a standard

digital programming segment, the quantity of differentiable programming content

available in the digital programming transmission stream is able to be increased by

the number of units of differentiable programming content corresponding to the at

least one component programming segment (page 57, lines 5-page 58, lines 21;

page 60, lines 29-page 61, lines 10 and page 69, lines 11-26).

Claim 2, Boucher discloses a method of providing an increased quantity of

differentiable programming content in a programming transmission system, the

differentiable programming content transmitted via a digital programming

transmission stream, to a plurality of users is further analyzed with respect to claim

1, in which "the synchronizing a plurality of digital programming components, the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit of differentiable programming content" reads on various method of encoding (MPEG page 50, lines 32-page 52, lines 25; page 60, lines 19-20).) of data types (video, audio, graphics data, etc..) that synchronize (page 23, lines 20-25; page 43, lines 15-20) in order to maximize the number of users to which the presentations can be distributed within a given channel bandwidth, see page 13, lines 4-6; page 21, lines 8-page 23, lines 11; page 43, lines 15-20);

Claim 3, Boucher r discloses a method of receiving an increased quantity of differentiable programming content in a programming transmission system, the differentiable programming content received by at least one user via a digital programming transmission stream (page 69, lines 22-page 70, lines 17), the method comprising:

receiving a plurality of synchronized digital programming components in the digital programming transmission stream, the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit

of differentiable programming content (page 23, lines 20-25; page 43, lines 15-20; page 67, lines 6-31; page 68, lines 9-15); and

selecting for presentation at least one subset of the plurality of digital programming components, the at least one subset comprising at least one component programming segment, wherein the at least one component programming segment is also a unit of differentiable programming content (page 58, lines 23-30);

wherein, without increasing the bandwidth normally allocated for a standard digital programming segment, the quantity of differentiable programming content received in the digital programming transmission stream is able to be increased by the number of units of differentiable programming content corresponding to the at least one component programming segment (page 57, lines 5-page 58, lines 21; page 60, lines 29-page 61, lines 10 and page 69, lines 11-26).

Claim 4, Boucher r discloses a method for creating differentiable programming content, wherein a quantity of differentiable programming content available for transmission in a digital programming transmission stream is increased is analyzed with respect to claims 1 and 2.

Claim 5, Boucher further discloses inserting the plurality of digital programming components (data objects, Scripts, multimedia elements; page 26,

lines 4-33; page 43, lines 1-7), into the digital programming transmission stream

(page 35, lines 5-3; page 62, lines 15-30).

Claim 6, Boucher further discloses wherein the at least one subset of the

plurality of digital programming components (page 68, lines 23-38) replaces the

standard digital programming segment in the digital programming transmission

stream (Col. 39, lines 10-page 40, lines 10; page 55, lines 1-page 56, lines 5; page

60, lines 7-20).

Claim 7, Boucher further discloses wherein the at least one subset of the

plurality of digital programming components (page 68, lines 23-38) is inserted into

the digital programming transmission stream in addition to the standard digital

programming segment (Col. 39, lines 10-page 40, lines 10; page 55, lines 1-page

56, lines 5; page 58, lines 8-21)

Claim 8, Boucher further discloses wherein the plurality of digital

programming components (data objects, Scripts, multimedia elements; page 26,

lines 4-33; page 43, lines 1-7) replaces the standard digital programming segment in

the digital programming transmission stream (Col. 39, lines 10-page 40, lines 10;

page 55, lines 1-page 56, lines 5; page 60, lines 7-20).

Claim 9, Boucher further discloses wherein the plurality of digital

programming components (data objects, Scripts, multimedia elements; page 26,

lines 4-33; page 43, lines 1-7) is inserted into the digital programming transmission

stream in addition to the standard digital programming segment (Col. 39, lines 10-

page 40, lines 10; page 55, lines 1-page 56, lines 5; page 58, lines 8-21).

Claim 10, Boucher further discloses wherein the standard digital programming

segment (page 40, lines 20-page 42, lines is reduced in quality and therefore utilizes

less than the bandwidth normally allocated for a standard digital programming

segment 21; page 51, lines 22-Col. 52, lines 20).

Claim 11, Boucher further discloses wherein the standard digital programming

segment is reduced in quality and therefore utilizes less than the bandwidth normally

allocated for a standard digital programming segment (page 40, lines 20-page 42,

lines 21; page 51, lines 22-Col. 52, lines 20).

Claim 12, Boucher further discloses wherein the plurality of digital

programming components (data objects, Scripts, multimedia elements; page 26,

lines 4-33; page 43, lines 1-7) replaces the standard digital programming segment in

the digital programming transmission stream (Col. 39, lines 10-page 40, lines 10;

page 55, lines 1-page 56, lines 5; page 60, lines 7-20).

Claim 13, Boucher further discloses wherein the plurality of digital

programming components (data objects, Scripts, multimedia elements; page 26,

lines 4-33; page 43, lines 1-7) is received in the digital programming transmission

stream in addition to the standard digital programming segment (Col. 39, lines 10-

page 40, lines 10; page 55, lines 1-page 56, lines 5; page 58, lines 8-21).

Claim 14, Boucher further discloses wherein the standard digital programming

segment is reduced in quality and therefore utilizes less than the bandwidth normally

allocated for a standard digital programming segment (page 40, lines 20-page 42,

lines 21; page 51, lines 22-Col. 52, lines 20).

Claim 15, Boucher further discloses wherein the plurality of digital

programming components are selected from the group consisting of: video, still-

frame video, audio, graphics, text, animation, and media objects (page 26, lines 4-8).

Claim 16, Boucher further discloses wherein the still-frame video comprises

scalable video frames (page 15, lines 18- page 17, lines 33; page 41, lines 17-24;

page 61, lines 13-17).

Claim 17, Boucher further discloses wherein the audio comprises less than

CD-quality audio (page 44, lines 1-7).

Claim 18, Boucher further discloses comprising digitally compressing the

plurality of digital programming components (frames (page 41, lines 17-24).

Claim 19, Boucher further discloses comprising digitally decompressing the plurality of digital programming components (page 67, lines 28-31).

Claim 20, Boucher further discloses wherein the digital programming transmission stream is carried over a transmission medium selected from the group consisting of: terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal communications network, and a communication network (page 31, lines 11-page 32, lines 15).

Claim 21, Boucher further discloses wherein the digital programming transmission stream is transmitted over a transmission medium selected from the group consisting of: terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal communications network, and a communication network (page 31, lines 11-page 32, lines 15).

Claim 22, Boucher further discloses wherein the digital programming transmission stream is received over a transmission medium selected from the group consisting of; terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal

communications network, and a communication network (page 31, lines 11-page 32, lines 15).

Claim 23, Boucher further discloses wherein the communication network is selected from the group consisting of: the Internet, an intranet, a local area network, a wide area network, a public network, and a private network (page 31, lines 11-page 32, lines 15).

Claim 24, Boucher further discloses wherein the differentiable programming content comprises advertising programming content (page 68, lines 29-32).

Claim 25, Boucher further discloses wherein the differentiable programming content comprises programming content selected from the group consisting of: news, sports, entertainment, situation comedy, music video, game show, movie, drama, educational programming, interactive video gaming, and live programming (page 21, lines 13-33).

Claim 26, Boucher further discloses comprising synchronizing the plurality of digital programming components (page 23, lines 20-25; page 43, lines 15-20; page 60, lines 19-20).

Claim 27, Boucher further discloses comprising targeting the at least one component programming segment toward at least one of a plurality of users

receiving the digital programming transmission stream (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32).

Claim 28, Boucher further discloses comprising targeting the at least one component programming segment toward at least one of the plurality of users to provide particular differentiable programming content to the at least one of the plurality of users (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32).

Claim 29, Boucher further discloses wherein the at least one component programming segment is targeted toward the at least one of the plurality of users based upon user profile information of the at least one of the plurality of users accessible by the programming transmission system (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32).

Claim 30, Boucher further discloses comprising determining whether the at least one component programming segment is targeted toward the at least one user to provide particular differentiable programming content to the at least one user, and wherein the step of selecting is based upon a determination that the at least one component programming segment is targeted toward the at least one user (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32).

Claim 31, Boucher further discloses comprising accessing user profile

information of the at least one user to determine whether the at least one component

programming segment is targeted toward the at least one user based upon the user

profile information of the at least one user (page 21, lines 12-18; page 59, lines 10-

33; page 68, lines 23-32).

Claim 32, Boucher further discloses comprising outputting the at least one

component programming segment to a presentation device for presentation to the at

least one user (page 23, lines 28-32; page 25, lines 31-page 26, lines 8; page 54,

lines 25-33; page 56, lines 29-33; page 58, lines 28-30).

Claim 33, Boucher further discloses comprising switching from a first of the at

least one component programming segment to a second of the at least one

component programming segment (page 23, lines 28-32; page 25, lines 31-page 26,

lines 8; page 54, lines 25-33; page 56, lines 29-33; page 58, lines 28-30).

Claim 34, Boucher further discloses comprising outputting the first and

second of the at least one component programming segment in sequence to a

presentation device for presentation to the at least one user, and wherein the step of

switching is seamless, whereby the switch is performed without a delay perceptible

by the at least one user between presentation of the first of the at least one

component programming segment and presentation of the second of the at least one

component programming segment on the presentation device (page 23, lines 28-32;

page 25, lines 31-page 26, lines 8; page 54, lines 25-33; page 56, lines 29-33; page

58, lines 28-30).

Claim 35, Boucher further discloses wherein the presentation device

comprises a device selected from the group consisting of: television, radio, video

tape player, audio tape player, digital video disk player, compact digital disk player,

minidisk player, digital file player, video game player, computer, personal digital

assistant device, telephone, wireless telephone, and a telephony device for the deaf

(page 21, lines 25,29, 33; page 32, lines 20-22).

Claims 36 and 38, Boucher discloses a system (Fig. 1) for providing an increased

quantity of differentiable programming content in a programming transmission

system, the differentiable programming content transmitted via a digital

programming transmission stream, to a plurality of users is analyzed with respect to

method claims 1, 2 and 4, the system (Fig. 1) comprising:

an encoder (Fig. 3; el. 360A..X) that interleaves a plurality of synchronized digital

programming components and a transmitter (Fig. 1, el. 135A..X and fig. 2) that

transmits the plurality of digital programming components in the digital programming

transmission stream to the plurality of users.

Claims 37 and 39, Boucher discloses a system for receiving an increased

quantity of differentiable programming content in a programming transmission

system (Fig. 1, el. 155 or 165 or 175), the differentiable programming content

received by at least one user via a digital programming transmission stream is

analyzed with respect to method claim 3. The system further inherently comprising

a tuner, a decoder and processor so to perform as disclosed.

Claims 40 and 41 are analyzed with respect to claims 6 and 8.

Claims 42 and 43 are analyzed with respect to claim 9.

Claim 44, Boucher further discloses wherein the receiver receives the plurality of

digital programming components in the digital programming transmission stream in

place of the standard digital programming segment (Col. 39, lines 10-page 40, lines

10; page 55, lines 1-page 56, lines 5; page 60, lines 7-20).

Claim 45, Boucher further discloses wherein the receiving means receives the

plurality of digital programming components in the digital programming transmission

stream in place of the standard digital programming segment (Col. 39, lines 10-page

40, lines 10; page 55, lines 1-page 56, lines 5; page 60, lines 7-20).

Claims 46 and 47 are analyzed with respect to claim 13.

Claim 48, A system as described in claim 42, claim 43, claim 46, or claim 47 is analyzed with respect to claim 10.

Claim 49, A system as described in claim 36, claim 37, claim 38, or claim 39 is analyzed with respect to claim 15.

Claim 50 is analyzed with respect to claim 16.

claim 51 is analyzed with respect to claim 17.

Claim 52, Boucher discloses a system as described in claim 36 further comprising a digital compressor (see Fig. 3, 373. 383) that compresses the plurality of digital programming components before they reach the multiplexer (360A-X and 365).

Claim 53, Boucher discloses a system as described in claim 38 further comprising a means (see Fig. 3, 373. 383) for digital compressing the plurality of digital programming components before they reach the combining means (360A-X and 365).

Claims 54 and 55 limitations "further comprising a digital decompressor that decompresses the plurality of digital programming components, and wherein the

processor further coordinates and directs the function of the decompressor" and

"further comprising means for digitally decompressing the plurality of digital

programming components, and wherein the processing means further coordinates

and directs the function of the decompressing means" are inherently met by Boucher

receiving system so to perform as disclose.

Claim 56, Boucher further discloses a system as described in claim 36 further

comprising a synchronization component that synchronizes the plurality of digital

programming components before they reach the multiplexer (page 23, lines 20-25;

page 43, lines 15-20).

Claim 57, Boucher further discloses a system as described in claim 38 further

comprising a means for synchronizing the plurality of digital programming

components before they reach the combining means (page 23, lines 20-25; page 43,

lines 15-20).

Claim 58, A Boucher further discloses a system as described in claim 36 further

comprising a modulator that modulates the multiplexed digital programming

components before they reach the transmitter (see Fig. 2; el. 250A..X).

Claim 59. Boucher further discloses a system as described in claim 38 further

comprising a means for modulating the combined digital programming components

before they reach the transmitting means Fig. 2; el. 250A..X).

Claim 60, Boucher further discloses a system as described in claim 36 further

comprising a memory for storing the plurality of digital programming components

before they reach the multiplexer (see Fig. 3, el. 301).

Claim 61, Boucher further discloses a system as described in claim 38 further

comprising a means for storing the plurality of digital programming components

before they reach the combining means (see Fig. 3, el. 301).

Claim 62, Boucher further discloses a system as described in claim 36 further

comprising a memory that stores user profile information of the at least one of the

plurality of users (Fig. 3, el. 394), "wherein the processor further coordinates and

directs the function of the memory, and wherein the at least one component

programming segment is targeted to the at least one of the plurality of users based

upon the user profile information of the at least one of the plurality of users, to

provide particular differentiable programming content to the at least one of the

plurality of users" is further met by Boucher as analyzed with respect to the above

claim 28.

Claim 63, "wherein the at least one component programming segment is targeted toward the at least one user to provide particular differentiable programming content to the at least one user, and wherein the signal selector further selects the at least one component programming segment based upon information in the at least one subset of the plurality of digital programming components that the at least one component programming segment is targeted to the at least one user." is further met by Boucher as analyzed with respect to the above claim 30.

Claim 64, "further comprising a memory for storing user profile information of the at least one user, wherein the signal selector further selects the at least one component programming segment that is targeted to the at least one user based upon the user profile information of the at least one user." is further met by Boucher as analyzed with respect to the above claim 31.

Claim 65 is further met by Boucher with respect to the above analysis of claim 20.

Claim 66 is further met by Boucher with respect to the above analysis of claim 22.

Claim 67 is further met by Boucher with respect to the above analysis of claim 20.

Claim 68 is further met by Boucher with respect to the above analysis of claim 22.

Claim 69 is further met by Boucher with respect to the above analysis of claim 22.

Claim 70 is further met by Boucher with respect to the above analysis of claim 24.

Claim 71 is further met by Boucher with respect to the above analysis of claim 25.

Claim 72 is further met by Boucher with respect to the above analysis of claim 33.

Claim 73 is further met by Boucher with respect to the above analysis of claim 34.

Claim 74 is further met by Boucher with respect to the above analysis of claim 35.

Claims 75-76, A computer program product for instructing a computer controlled digital programming reception system with interactive programming technology to select targeted differentiable programming content for a user, the targeted differentiable programming content received at the reception system via a digital programming transmission stream in an increased quantity is further met by Boucher with respect to the above analysis of claims 1-35.

Claim 77, A method of receiving an increased quantity of differentiable

advertising segments in a programming transmission system, the differentiable

advertising segments received by at least one user via a digital programming

transmission stream is further met by Boucher with respect to the above analysis of

claim 3.

Claim 78 is further met by Boucher with respect to the above analysis of claim

15.

Claim 79, Boucher further discloses wherein the step of receiving further

comprises receiving the at least one command code in the digital programming

transmission stream (page 45, lines 8-15).

Claim 80, Boucher further discloses comprising receiving the at least one

command code from a user via a user interface (page 45, lines 8-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hai Tran whose telephone number is (571) 272-7305.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher C. Grant can be reached on (571) 272-7294. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht
09/29/2005

HAI TRAN
PRIMARY EXAMINER